

WHAT IS CLAIMED IS:

- 1 1. A method for enabling error-free delivery of data
2 between a plurality of peer entities, comprising the steps of:
3 a transmitting peer entity sending a polling request to a
4 receiving peer entity, said polling request requesting a status
5 report; and
6 responsive to said polling request, said receiving peer
7 entity sending said status report to said transmitting peer
8 entity.
- 9 2. The method of Claim 1, wherein said transmitting peer
10 entity sends said polling request when a last PDU in a
11 transmission buffer is transmitted.
- 12 3. The method of Claim 1, wherein said transmitting peer
13 entity sends said polling request when a status report has not
14 been received by said transmitting peer entity and a polling
15 timer has timed out.

1 4. The method of Claim 1, wherein said transmitting peer
2 entity sends said polling request when said transmitting peer
3 entity has transmitted a predefined number of PDUs.

4 5. The method of Claim 1, wherein said transmitting peer
5 entity sends said polling request when said transmitting peer
6 entity has transmitted a predefined number of SDUs.

7 6. The method of Claim 1, wherein said transmitting peer
8 entity sends said polling request when said transmitting peer
9 entity has transmitted during a predefined portion of a
10 transmitting window.

11 7. The method of Claim 1, wherein said transmitting peer
12 entity sends said polling request when said transmitting peer
13 entity has transmitted during a predefined period of time.

1 8. The method of Claim 1, wherein said transmitting peer
2 entity defers sending said polling request for a predefined
3 period of time.

4 9. The method of Claim 1, wherein said transmitting peer
5 entity adjusts a transmission window parameter responsive to
6 receiving said status report.

7 10. The method of Claim 1, wherein said transmitting peer
8 entity retransmits at least one PDU responsive to receiving said
9 status report.

10 11. The method of Claim 1, wherein said transmitting peer
11 entity retransmits at least one PDU responsive to receiving said
12 status report, if said status report is plausible.

13 12. The method of Claim 1, wherein said receiving peer
14 entity transmits said status report to said transmitting peer

1 entity if an estimated PDU counter is not counting, said
2 receiving peer entity not sending said status report to said
3 transmitting peer entity if said estimated PDU counter is
4 counting.

5 13. The method of Claim 1, wherein said receiving peer
6 entity transmits said status report to said transmitting peer
7 entity if said receiving peer entity detects at least one
8 missing or incorrectly received PDU.

9 14. The method of Claim 1, wherein said receiving peer
10 entity transmits said status report to said transmitting peer
11 entity when a predefined number of PDUs is received.

12 15. The method of Claim 1, wherein said receiving peer
13 entity transmits said status report to said transmitting peer
14 entity when a predefined number of SDUs is received.

1 16. The method of Claim 1, wherein said receiving peer
2 entity transmits said status report to said transmitting peer
3 entity responsive to receipt of a poll.

4 17. The method of Claim 1, wherein said receiving peer
5 entity transmits said status report to said transmitting peer
6 entity when the transmitting peer entity has transmitted during
7 a predefined portion of a transmitting window.

8 18. The method of Claim 1, wherein said receiving peer
9 entity sends said status report during a predefined period of
10 time.

11 19. The method of Claim 1, wherein said receiving peer
12 entity defers sending said status report for a predefined period
13 of time.

1 20. A system for enabling error-free delivery of data
2 between a plurality of peer entities, comprising:
3 a transmitting peer entity;
4 a receiving peer entity; and
5 a communication link between said transmitting peer entity
6 and said receiving peer entity for communicating data
7 therebetween, said transmitting peer entity including means for
8 sending a polling request to said receiving peer entity, said
9 polling request requesting a status report; and
10 said receiving peer entity including means for sending said
11 status report to said transmitting peer entity responsive to
12 said polling request.

13 21. The system of Claim 20, wherein said transmitting peer
14 entity sends said polling request when a last PDU in a
15 transmission buffer is transmitted.

1 22. The system of Claim 20, wherein said transmitting peer
2 entity sends said polling request when a status report has not
3 been received by said transmitting peer entity and a polling
4 timer has timed out.

5 23. The system of Claim 20, wherein said transmitting peer
6 entity sends said polling request when said transmitting peer
7 entity has transmitted a predefined number of PDUs.

8 24. The system of Claim 20, wherein said transmitting peer
9 entity sends said polling request when said transmitting peer
10 entity has transmitted a predefined number of SDUs.

11 25. The system of Claim 20, wherein said transmitting peer
12 entity sends said polling request when said transmitting peer
13 entity has transmitted during a predefined portion of a
14 transmitting window.

1 26. The system of Claim 20, wherein said transmitting peer
2 entity sends said polling request when said transmitting peer
entity has transmitted during a predefined period of time.

4 27. The system of Claim 20, wherein said transmitting peer
5 entity defers sending said polling request for a predefined
6 period of time.

7 28. The system of Claim 20, wherein said transmitting peer
8 entity adjusts a transmission window parameter responsive to
9 receiving said status report.

10 29. The system of Claim 20, wherein said transmitting peer
11 entity retransmits at least one PDU responsive to receiving said
12 status report.

1 30. The system of Claim 20, wherein said transmitting peer
2 entity retransmits at least one PDU responsive to receiving said
3 status report, if said status report is plausible.

4 31. The system of Claim 20, wherein said receiving peer
5 entity transmits said status report to said transmitting peer
6 entity if an estimated PDU counter is not counting, said
7 receiving peer entity not sending said status report to said
8 transmitting peer entity if said estimated PDU counter is
 counting.

9 32. The system of Claim 20, wherein said receiving peer
10 entity transmits said status report to said transmitting peer
11 entity if said receiving peer entity detects at least one
12 missing or incorrectly received PDU.
13

1 33. The system of Claim 20, wherein said receiving peer
2 entity transmits said status report to said transmitting peer
3 entity when a predefined number of PDUs is received.

4 34. The system of Claim 20, wherein said receiving peer
5 entity transmits said status report to said transmitting peer
6 entity when a predefined number of SDUs is received.

7 35. The system of Claim 20, wherein said receiving peer
8 entity transmits said status report to said transmitting peer
9 entity when the transmitting peer entity has transmitted during
10 a predefined portion of a transmitting window.

11 36. The system of Claim 20, wherein said receiving peer
12 entity sends said status report during a predefined period of
13 time.



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